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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/072,149	02/06/2002	Mark W. Kimberlin	D-2978	1374
33197	7590	06/09/2004	EXAMINER	
STOUT, UXA, BUYAN & MULLINS LLP			SALDANO, LISA M	
4 VENTURE, SUITE 300			ART UNIT	
IRVINE, CA 92618			PAPER NUMBER	
			3673	

DATE MAILED: 06/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/072,149

Applicant(s)

KIMBERLIN ET AL.

Examiner

Lisa M. Saldano

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 May 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7, 9, 12, 23, 24 and 27-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7, 9, 12, 23, 24 and 27-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 28 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The terms "a relatively heavy weight biaxial geogrid" and "a relatively light weight grid-like netting material" in claim 28 contain a relative term which renders the claim indefinite. The term "relatively" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

Claim Objections

1. Claim 12 is objected to because of the following informalities:

Regarding claim 12, line 1, the claim depends from claim 11, which has been cancelled.

For purposes of examination, the examiner assumed that claim 12 depends from claim 1.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 28 and 29 are rejected under 35 U.S.C. 102(b) as being anticipated by Prunty et al (5,786,281).

Prunty et al disclose an erosion control blanket and method of manufacture. Prunty et al disclose that prior art erosion control blankets (see Fig. 2) typically are formed of a multiplicity of elongated fibers, such as wood wool, including no powdered or granular water absorbent material, at least one layer of netting 128 extending across a top surface of the layer of elongated fibers and a second plastic net 130 attached to a bottom side of the blanket. Prunty et al disclose that the netting serves to reinforce conventional erosion control mats and to facilitate their handling during installation of the blanket (see column 3, line 58 to column 4, line 16).

Furthermore regarding claim 28, as broadly claimed by the applicant, the range of optimization for the weights of the netting covering the upper and lower surfaces of the can be determined through routine optimization using the teachings of Prunty et al.

Regarding claim 29, the range of optimization for density of the blanket may be found through routine experimentation.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-7, 23, 24, and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fujita et al. (JP-2001234540-A) in view of Prunty et al (5,786,281) and Duffy (5,055,151).

Fujita et al disclose an erosion control sheet mat comprising a core layer of randomly oriented thermoplastic resin fibrous material, including no powdered or granular water absorbent material, that form a substantially flat upper and lower surface (see Fig.2). Fujita et al disclose that the erosion control sheet mat also comprises a net-like material. Fujita et al further disclose that the mat is excellent in strength, flexibility and durability. Fujita et al disclose that the erosion control sheet mat protects a bank slope surface and the like from erosion (see abstract).

However, Fujita et al fail to explicitly disclose that the net material is placed on the upper and lower surfaces of the mat. Fujita et al also fail to explicitly disclose that the erosion control matting is structured to resist trapping of sediment.

Regarding claims 1, 24 and 27, Prunty et al disclose an erosion control blanket and method of manufacture. Prunty et al disclose that prior art erosion control blankets (see Fig. 2) typically are formed of a multiplicity of elongated fibers, at least one layer of netting 128 extending across a top surface of the layer of elongated fibers and a second plastic net 130 attached to a bottom side of the blanket. Prunty et al disclose that the netting serves to reinforce conventional erosion control mats and to facilitate their handling during installation of the blanket (see column 4, lines 6-16).

It would have been obvious to one of ordinary skill in the art at the time of the invention to place the netting of the Fujita et al erosion control sheet mat on the top and bottom surfaces of the core layer, as taught by Prunty et al, because the netting reinforces the erosion control mats and facilitates their handling during installation, as mentioned by Prunty et al.

Duffy discloses a porous filamentary mat and method of making the same comprising elongated portions of thermoplastic filaments, which are essentially fibers. Duffy discloses an embodiment wherein the mat is used as an erosion-controlling mat (see column 3, lines 31-45). Duffy discloses that the mat comprises a low profile that allows it to readily permit water to flow over it in a laminar manner as opposed to a turbulent manner.

Regarding claims 1 and 2, Duffy discloses that compression (compaction) is used to provide the mat with the low profile (see column 3, lines 40-46). Duffy further discloses that the compression is performed at bonding temperatures.

Regarding claim 23, Duffy illustrates that the erosion control mat has a core layer of fibrous material that is uniformly thick.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the erosion control mat of Fujita et al by compressing it and forming a low profile that directs the flow of water thereover in a laminar manner, as taught by Duffy, because doing so provides structure that resists trapping sediment and particulates in the water, because the water flows freely over the mat.

Regarding claim 3, the range of optimization of density for the erosion control mat of Fujita et al as modified by Prunty et al and Duffy can be found by routine experimentation.

Regarding claims 4 and 5, the range of optimization of Manning's "N" value of roughness for the erosion control mat of Fujita et al as modified by Prunty et al and Duffy can be found by routine experimentation. Duffy clearly provides the motivation to achieve low roughness values by suggesting structure that enables laminar flow of water over the mat.

Regarding claims 6 and 7, Fujita et al disclose that the erosion control sheet mat protects a bank slope surface and the like from erosion (see abstract). As broadly claimed by the applicant, Fujita et al's erosion control sheet mat as modified by Prunty et al and Duffy comprises the structure claimed by the applicant of the present invention and is fully capable of protecting sloped surfaces within a range of optimal velocities and exposure durations as determined by routine experimentation.

6. Claims 9 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fujita et al. in view of Prunty et al and Duffy, as applied to claim 1 above, in further view of Stephens et al (5,651,641).

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Fujita et al., Prunty et al., and Duffy disclose the inventions as described above.

Specifically, Fujita et al disclose that the erosion control blanket comprises fibrous thermoplastic resin material.

However, neither Fujita et al, Prunty et al, nor Duffy disclose that the plastic material comprises polypropylene; they also fail to disclose stitch bonding.

Regarding claim 9, Stephens et al disclose a mat for a broad variety of erosions control. Stephens et al disclose that erosion control blankets are conventionally formed of various organic or synthetic fibers that may be woven, glued or otherwise structurally connected to nettings or meshes (see column 1, lines 57-60. Stephens et al further disclose that erosion control blankets include three-dimensional fibrous matrices of straw, wood, coconut, polypropylene or other materials (see column 1, lines 60-65).

Regarding claim 12, Stephens et al further disclose that common geo-synthetic mats comprise meshes heat bonded together, extruded monofilaments of nylon or PVC heat bonded, and other materials that are mechanically stitched between high strength nettings.

It would have been obvious to one of ordinary skill in the art at the time of the invention to use polypropylene, as taught by Stephens et al, for the plastic of the erosions control blanket of Fujita et al, because, it is a material that is commonly used in erosion control blankets, as suggested by Stephens et al. Furthermore, it would have been obvious to one of ordinary skill in the art at the time of the invention to stitch bond the mesh or geo-grid to the core fibrous layer because it is a common method of attaching components of the inventions together, as suggested by Stephens et al.

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Response to Arguments

7. Applicant's arguments with respect to claims 1 and 28 have been considered but are moot in view of the new ground(s) of rejection.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lisa M. Saldano whose telephone number is 703-605-1167. The examiner can normally be reached on Monday-Friday, 8:30am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Heather C. Shackelford can be reached on 703-308-2978. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

lms


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